AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently amended) An apparatus for regenerating a particulate filter, comprising:

a catalyst;

a first temperature sensor operable to determine a first temperature corresponding to a temperature of the catalyst and to transmit a first temperature signal as a function thereof;

a particulate filter thermally coupled with the catalyst;

a hydrocarbon delivery system operable to deliver unburned hydrocarbons to the catalyst as a function of a first control signal;

a second temperature sensor operable to determine a second temperature corresponding to a temperature of the particulate filter and to transmit a second temperature signal as a function thereof; and

a regeneration controller coupled with the first and second temperature sensors to receive the first and second temperature signals and coupled with the hydrocarbon delivery system, the regeneration controller operable to:

determine if the first temperature is above a first threshold temperature;

transmit ~~the~~ a first control signal to the hydrocarbon delivery system that is operable to cause the hydrocarbon delivery system to deliver substantially no unburned hydrocarbons to the catalyst when the first temperature is below the first threshold [[.]] temperature;

transmit ~~the first~~ a second control signal to the hydrocarbon delivery system that is operable to cause the hydrocarbon delivery system to deliver unburned hydrocarbons to the catalyst when the first temperature is above the first threshold temperature and the second temperature is below a second threshold temperature; and

transmit a third control signal to the hydrocarbon delivery system to reduce the hydrocarbons delivered to the catalyst when the first temperature is above the first threshold temperature and the second temperature is above a third threshold temperature, the third threshold temperature being different from the second threshold temperature.

2. (Original) The apparatus of claim 1 wherein first threshold temperature comprises a light-off temperature of the catalyst.

3. (Original) The apparatus of claim 1 wherein the second threshold temperature comprises substantially a temperature operable to regenerate the particulate filter.

4. (Cancelled)

5. (Currently amended) The apparatus of claim [[4]] 1 wherein the ~~fourth~~ third threshold temperature comprises a temperature of not more than approximately 625 to 675 degrees Celsius.

6. (Original) The apparatus of claim 1 wherein the hydrocarbon delivery system comprises a fuel injector.

7. (Currently amended) An apparatus for regenerating a particulate filter, comprising:

a catalyst;

a first temperature sensor operable to determine a first temperature corresponding to a temperature of the catalyst and to transmit a first temperature signal as a function thereof;

a particulate filter thermally coupled with the catalyst;

a hydrocarbon delivery system operable to deliver unburned hydrocarbons to the catalyst as a function of a first control signal;

a second temperature sensor operable to determine a second temperature corresponding to a temperature of the particulate filter and to transmit a second temperature signal as a function thereof; and

a regeneration controller coupled with the first and second temperature sensors to receive the first and second temperature signals and coupled with the hydrocarbon delivery system, the regeneration controller operable to:

determine if the first temperature is above a first threshold temperature;

determine if the second temperature is above a second threshold temperature;

transmit a control signal to the hydrocarbon delivery system that is operable to:

cause the hydrocarbon delivery system to deliver substantially no unburned hydrocarbons to the catalyst when the first temperature is below the first threshold temperature;

cause the hydrocarbon delivery system to increase the quantity of unburned hydrocarbons delivered to the catalyst when the first temperature is above the

first threshold temperature and the second temperature is below the second threshold temperature; and

cause the hydrocarbon delivery system to decrease the quantity of unburned hydrocarbons to the catalyst when the first temperature is above the first threshold temperature and the second temperature is above a third threshold temperature, the third threshold temperature being different from the second threshold temperature.

8. (Cancelled)

9. (Original) The apparatus of claim 7 wherein the second threshold temperature comprises substantially the third threshold temperature.

10. (Currently amended) The apparatus of claim 7 wherein the first ~~temperature~~ threshold temperature comprises substantially the light-off temperature of the catalyst.

11. (Currently amended) The apparatus of claim 7 wherein the second ~~temperature~~ threshold temperature comprises substantially a temperature operable to regenerate the particulate filter.

12. (Original) The apparatus of claim 7 wherein the hydrocarbon delivery system comprises a fuel injector.

13. (Currently amended) A method for regenerating a particulate filter, comprising:

determining a first temperature corresponding to a temperature of a catalyst that is thermally coupled with a particulate filter;

determining a second temperature corresponding to the temperature of the particulate filter;

delivering substantially no unburned hydrocarbons to the catalyst when the first temperature is below a first threshold temperature; ~~and~~

delivering unburned hydrocarbons to the catalyst when the first temperature is above the first threshold temperature and the second temperature is below a second threshold temperature; and

delivering reduced hydrocarbons to the catalyst when the second temperature is above a third threshold temperature different from the second threshold temperature.

14. (Original) The method of claim 13 wherein delivering unburned hydrocarbons to the catalyst comprises delivering at least one of a diesel fuel, gasoline, natural gas, kerosene, and crude oil to the catalyst.

15. (Original) The method of claim 13 wherein the first threshold temperature comprises a "light-off" temperature for the catalyst.

16. (Original) The method of claim 13 wherein the second threshold temperature comprises a temperature operable to regenerate the particulate filter.

17. (Currently amended) A method for regenerating a particulate filter, comprising:

determining a first temperature corresponding to a catalyst that is thermally coupled with a particulate filter;

determining a second temperature corresponding to the temperature of the particulate filter; and

performing closed loop control of the second temperature when the first temperature is above a first threshold, the closed loop control including delivering unburned hydrocarbons to the catalyst when the first temperature is above the first threshold temperature and the second temperature is below a second threshold temperature, and delivering reduced hydrocarbons to the catalyst when the second temperature is above a third threshold temperature different from the second threshold temperature.

18. (Original) The method of claim 17 wherein performing closed loop control of the second temperature comprises controlling the second temperature to substantially a predetermined temperature.

19. (Original) The method of claim 18 wherein the predetermined temperature comprises a temperature operable to regenerate the particulate filter.

20. (Original) The method of claim 17 wherein performing closed loop control of the second temperature comprises controlling the second temperature to substantially a predetermined range of temperatures.

21. (Original) The method of claim 20 wherein the predetermined range of temperatures comprises a range of temperatures operable to regenerate the particulate filter.

AMENDMENTS TO THE DRAWINGS:

The attached sheets of drawings include a change to the drawing number in the second sheet of drawings. In the second sheet, the drawing number is changed from "Fig. 3" to "Fig. 2."

Attachments: Replacement drawings - Two sheets (Figs. 1 and 2)